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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/840,515	04/23/2001	Ki-Won Jeong	11154-002002	4443
26161	7590	03/08/2006	EXAMINER	
FISH & RICHARDSON PC			VU, NGOC K	
P.O. BOX 1022			ART UNIT	
MINNEAPOLIS, MN 55440-1022			PAPER NUMBER	
			2611	

DATE MAILED: 03/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/840,515

Applicant(s)

JEONG ET AL.

Examiner

Ngoc K. Vu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) 1-9, 22-30 and 39-41 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 20, 31-34, 37 and 38 is/are rejected.
- 7) ☒ Claim(s) 10-19, 21, 35 and 36 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 9/30/02.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Objections***

1. Claim 1 is objected to because of the following informalities: it appears that the analog set top box comprises the analog satellite signal and image signal, and the digital set top box comprises the digital satellite signal and image signal. However, it is unclear which "signals" from the digital set top box and the analog set top box that are received by a graphic menu generator as recited in line 10. Please clarify the limitation "signals". Appropriate correction is required.

2. Claim 21 is objected to because of the following informalities: it appears that the limitation "the graphic menu" as recited in line 2 is in singular. Examiner suggests that this limitation should be changed into "the graphic menus". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 37 and 38 are rejected under 35 U.S.C. 102(b) as being anticipated by Chaney et al. (US 5,515,058 A).

Regarding claim 37, Chaney discloses a method for receiving satellite broadcast, comprising steps of: setting moving limits of a satellite antenna (5) (via elevation look up table – see col. 3, lines 25-34; col. 4, lines 14-17); detecting signal received from the satellite antenna (microprocessor detects/receives signal quality data from demodulator from the plurality of signals received from antenna 5) with changing direction of the satellite antenna (via antenna

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alignment – see col. 5, lines 18-67; col. 6, lines 10-15 and 45-48); displaying signal strength of the detected signal with a graphic menu which indicates the signal strength of the detected signal (signal quality graphics – see col. 8, lines 40-55); and detecting a satellite based on the signal strength which is displayed on the graphic menu (it is noted that the satellite antenna 5 must be positioned to receive the television signals transmitted by satellite 3 to provide the best quality image, and the signal quality graphics feature may be selected by a user by means of the antenna alignment menu see col. 3, line 60 to col. 4, line 6; col. 8, lines 55-57).

Regarding claim 38, Chaney discloses that the signal strength displayed on the graphic menu is characterized by FEC rate (col. 6, lines 1-4 and 45-48).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chaney et al. (US 5,515,058 A) in view of Rodeffer (US 5,296,862 A).

Regarding claim 20, Chaney teaches a digital satellite broadcast receiver (17) (see figures 1 and 3) comprising: a satellite antenna (5) which receives a satellite signal while moving (antenna alignment) (see col. 3, lines 44-51); a digital set-top box (317 within receiver 17) which receives a digital satellite signal of the satellite signal (see col. 6, lines 10-44, converts the digital satellite signal into an image signal, and controls a direction of the satellite antenna (col. 4, lines 55-60; col. 5, lines 19-21); a graphic menu generator device (341) which receives signals from the digital set-top box and generates a menu for performing antenna alignment

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operation (col. 8, lines 40-57; col. 4, lines 55-59); and a display device (21) which displays the graphic menus generated by the graphic menu generator (col. 4, lines 55-59).

Chaney does not specifically teach generating a plurality of graphic menus for performing various satellite detecting operations. However, Rodeffer teaches a plurality of menus as shown in figures 4-6 for performing various satellite detecting operations. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Chaney by generating a plurality of graphic menus for performing various satellite detecting operations as taught by Rodeffer in order to provide user-friendly menus for locating satellite or targeting satellite effectively.

7. Claims 31-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rodeffer (US 5,296,862 A) in view of Chaney et al. (US 5,515,058 A).

Regarding claim 31, Rodeffer teaches a method for receiving satellite broadcast used for a satellite broadcast receiver (60) including a display device (TV) to displaying a plurality of graphic menus (as shown in figures 4-6) which indicates moving limits and a position of a satellite antenna (10), and a position of satellites, the method comprising the steps of: setting a numerical moving limit of the satellite antenna (latitude and longitude values – see col. 6, lines 9-11 and 15-16) ; displaying a present direction of the satellite antenna with a graphic menu, the present direction of the satellite antenna being displayed on a first bar menu of the graphic menu indicating the moving limit of the satellite antenna (420 and 430 – see figure 4); determining if a detected satellite is a desired satellite when the signal received by the satellite antenna is maximum (see col. 6, lines 15-20); and storing a relative position of the detected satellite (twelve readings) and displaying in the display device the relative position of the detected satellite with a second bar menu of the graphic menu, the second bar menu indicating

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the moving limit of the satellite antenna (frequency of audio sub-carrier in corresponding channel of satellite – see col. 15, lines 28-42 and col. 16, lines 34-40).

Rodeffer does not teach displaying a magnitude of a signal received by the satellite antenna with a graphic menu on the display device. However, Chaney discloses that signal quality graphics is displayed on screen to indicate the signal quality (see col. 8, lines 40-57). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Rodeffer by displaying signal quality graphics on screen for indicating the signal quality in order to assist the user in optimizing the adjustment of either or both of the elevation and azimuth position.

Regarding claim 32, Rodeffer further teaches selecting a satellite of the detected satellites; displaying movement of an indicator of the first menu to an indicator of the second menu indicating the selected satellite; changing a direction of the satellite antenna toward a direction of the selected satellite automatically; and receiving the satellite signal (see col. 6, lines 15-20 and 56-61; col. 8, lines 66-67).

Regarding claim 33, Rodeffer further teaches that the step of determining if the detected satellite is the desired satellite is performed by the user viewing an analog image signal display overlaid on the graphic menus on the display device (see col. 9, lines 51-62).

Regarding claim 34, the combined system of Rodeffer and Chaney further teaches that the step of determining if the detected satellite is the desired satellite is performed, in the case where the satellite is a digital satellite, by comparing transponder information with transponder information of the desired satellite (see Rodeffer: col. 10, lines 51-56; Chaney: col. 3, lines 13-18).

***Allowable Subject Matter***


8. Claims 1-19 would be allowable if rewritten or amended to overcome the objection set forth in this Office action.
9. Claim 21 would be allowable if rewritten to overcome the objection set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.
10. Claims 35 and 36 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ngoc K. Vu whose telephone number is 571-272-7306. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Miller can be reached on 571-272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Ngoc K. Vu  
Primary Examiner  
Art Unit 2611

March 6, 2006